

Brief communication/Communication brève

THREE SPECIES OF SOCIAL PARASITIC ANTS NEW TO TURKEY

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SUMMARY

Anergates atratulus, *Chalepoxenus muellerianus* and *Epimyrma kraussei*, three species of social parasitic ants, have been found in Turkey. The localities are indicated.

RESUME

Trois espèces de fourmis parasites nouvelles pour la Turquie

Anergates atratulus, *Chalepoxenus muellerianus* et *Epimyrma kraussei*, trois espèces de fourmis parasites ont été trouvées pour la première fois en Turquie. On indique les localités.

Though a large number of species of ants has been collected in Turkey and the Near East, almost no information is available on the occurrence of social parasites in this zoogeographically very heterogeneous area (BYTINSKI-SALZ, 1953). Seemingly no other social parasite was reported from Turkey since Santschi described *Strongylognathus kervillei* from the environs of Ankara in 1921. Another species, *Strongylognathus palaestinensis* was established by MENOZZI in 1933 on a single female caught in flight near Gebata in Israel. The levantine species *Monomorium advena* Brown & Wilson (= *Epixenus andrei* Emery), which was formerly believed to be an inquiline parasite in nests of *Monomorium venustum* (EMERY, 1922), has been proved to be an independent species (TOHMÉ & TOHMÉ, 1979).

In this paper I want to report the first finds of three species of social parasitic *Myrmicinae*, which were collected during a stay in Turkey in July, 1986.



Fig. 1. — Collection sites of *Anergates atratulus* (1), *Chalepoxenus muellerianus* (2) and *Epimyrmica kraussei* (3) in Turkey.

Fig. 1. — Localités de *Anergates atratulus* (1), *Chalepoxenus muellerianus* (2) et *Epimyrmica kraussei* (3) en Turquie.

***Anergates atratulus* (SCHENCK, 1852)**

About a dozen winged females and as many pupoidal males were found under a stone. Most probably the host workers belong to a very large variant of *Tetramorium caespitum*, its usual host species.

The ants nested in a light wood consisting mostly of black pine, wallonian and holm oak (*Pinus nigra*, *Quercus macrolepis*, *Quercus ilex*), north of Tavsanli (Kütahya province) in 1000 m elevation. *Anergates atratulus* is a workerless obligate parasite and has been found yet in most European countries and as far east as Central Siberia (BARONI-URBANI, 1971). It seemingly was also introduced accidentally to North America (SMITH, 1947).

***Chalepoxenus muellerianus* (FINZI, 1922)**

A whole colony of this slave-making ant, consisting of a fertile queen, about 15 workers and about the same number of slaves, seemingly belonging

to *Leptothorax* (*Myrafant*) *unifasciatus*, was collected in 640 m elevation at Kazkiran Gecidi Pass, 20 km east of the town of Tarakli (Sakarya province). Here the nest was found in a dry stick in a dense forest of black pine, wallonian oak, *Arbutus andrachne* and *Rhus coriaria*. *Chalepoxenus muelle-rianus* has been reported from a number of mediterranean countries (EHRHARD, 1986). Recently several nests were collected on the island of Thassos in northeast Greece (WINTER, pers. comm.).

Epimyrma kraussei EMERY, 1915

A single female within a nest of *Temnothorax recedens* was found in 1 000 m elevation at Güllükdagi near the ancient site of Termessos (Antalya province). The ants nested in the moss cover of a rock in a light oak and pistachio wood.

The genus *Epimyrma* is common to most mediterranean countries and to Central Europe. *E. kraussei* itself is a degenerate slavemaker, meaning that colonies produce very few *Epimyrma* workers, so that slave raids in the field must be extremely rare or may even be non-existent (BUSCHINGER & WINTER, 1983). Its range extends from Spain and Northafrica as far east as Greece (BUSCHINGER *et al.*, 1986). The colony from Termessos was kept in the laboratory, where the *Epimyrma* female produced larvae and female pupae until September.

The latter two species belong to the ant tribe *Leptothoracini*, which is extremely rich in social parasites, slave-makers, inquilines, guest ants, etc.

The *Leptothoracini* have not yet been thoroughly studied in Turkey, but there is evidence for dense populations of *Leptothorax* s. str. (AKTAÇ, 1978) and *Myrafant* (own observation) in various parts of northern and western Turkey. Both subgenera typically are host species of a number of social parasitic genera. Most probably a more careful examination of suitable habitats will bring forward a number of other parasitic species from Turkey.

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References

- AKTAÇ N., 1978. — Karincaların yuva sayılarında saptanan mevsimsel değişiklikler. *Biyol. Derg.*, 28, 53-65.
BARONI-URBANI C., 1971. — Catalogo delle specie di Formicidae d'Italia. *Mem. Soc. Ent. Ital.*, 50, 5-287.
BYTINSKI-SALZ H., 1953. — The zoogeography of ants in the Near East. *Rev. Fac. Sci. Univ. Ist. Ser. B*, 18, 67-74.
BUSCHINGER A., FISCHER K., GUTHY H.P., JESSEN K., WINTER U., 1986. — Biosystematic revision of *Epimyrma kraussei*, *E. vandeli*, and *E. foreli* (Hymenoptera: Formicidae). *Psyche*, in press.

- BUSCHINGER A., WINTER U., 1983. — Population studies on the dulotic ant, *Epimyrma ravouxi*, and the degenerate slave-maker, *E. kraussei* (Hymenoptera: Formicidae). *Entomol. Gener.*, 8, 251-266.
- EMERY C., 1922. — *Genera Insectorum*, 174 B, 185.
- EHRHARDT W., 1986. — Biosystematics of the slavemaking ant genus *Chalepoxenus*. *Proceedings of the 10th International Congress IUSSI*, in press.
- MENOZZI C., 1933. — Le formiche della Palestina. *Mem. Soc. Entom. Ital.*, 12-113.
- SANTSCHI F., 1921. — Notes sur les Fourmis paléarctiques. II. Fourmis d'Asie Mineure récoltées par M. H. Gadeau de Kerville. *Bol. R. Soc. Esp. Hist. Nat.*, 21, 110-116.
- SMITH M.R., 1947. — A generic and subgeneric synopsis of the United States ants, based on the workers (Hymenoptera: Formicidae). *Am. Midl. Nat.*, 37, 521-647.
- TOHMÉ H., TOHMÉ G., 1979. — Le genre *Epixenus* Emery (Hymenoptera, Formicidae, Myrmicinae) et ses principaux représentants au Liban et en Syrie. *Bull. Mus. Natn. Hist. Nat.*, Paris, 4^e sér., 1, sec. A, 4, 1087-1108.
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